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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/737,441	12/13/2000	Michael Ralph Foster	DEP-0112(DP-302738)	1875

7590

05/18/2004

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EXAMINER

TRAN, HIEN THI

ART UNIT

PAPER NUMBER

1764

DATE MAILED: 05/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/737,441	<b>Applicant(s)</b> FOSTER ET AL.	
	<b>Examiner</b> Hien Tran	<b>Art Unit</b> 1764	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 April 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>4/25/01 &amp; 2/2/04</u> . | 6) <input type="checkbox"/> Other: ____.  |

## DETAILED ACTION

### *Drawings*

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "24" has been used to designate both outlet 24 (page 6, line 17) and end plate 24 (page 15, line 14). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.
2. The drawings have not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the drawings to comply with CFR 1.84(p)(5), e.g. they should include the reference sign(s) mentioned in the specification and vice versa.

### *Specification*

3. The disclosure is objected to because of the following informalities:  
  
On page 6, line 2 "elementcan" should be changed to --element can--; in line 16 one of the two phrases of "sidewall" should be deleted.  
  
On page 8, lines 1-2 "DI" and "d1" should be changed to --D'-- and --d'-- for consistency (note Figs. 8-9).  
  
Appropriate correction is required.
4. The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

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***Claim Objections***

5. Claims 8, 14, 18 are objected to because of the following informalities:

In claims 8, 14, and 18, line 2 a comma should be inserted after "rib".

Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claim 13 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 13, line 3, it is unclear as to what structural limitation applicants are attempting to recite.

***Claim Rejections - 35 USC § 102***

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1-3, 10-11, 13-15, 17-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Yaguchi (3,937,617).

With respect to claim 1, Yaguchi discloses an exhaust system component, e.g. end cone assembly comprising:

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a conical shaped sidewall 12 extending outward to a shoulder and a mat protection element 22 extending from said shoulder, away from said sidewall, a mat protection element 22 extending from said shoulder, away from said sidewall, wherein said shoulder secures to an exhaust system component (col. 2, line 15 to col. 3, line 33; Fig. 1).

With respect to claims 2, 3, the shoulder diameter in Yaguchi is greater than the mat protection element diameter at the upper portion or equivalent to said mat protection element diameter at the lower portion (Fig. 1).

With respect to claims 10 and 15, Yaguchi further discloses a catalytic converter and a method of making the catalytic converter comprising:

- a catalyst substrate 26 comprising a catalyst;
- a shell 18 concentrically disposed around said catalyst substrate;
- a mat support material 38 disposed between said catalyst substrate and said shell, and concentrically around said catalyst substrate; and

said endcone assembly, wherein said endcone assembly is securedly attached to said shell at said shoulder (col. 2, lines 15-26; Fig. 1).

With respect to claims 11, 19, the mat protection element 22 contacts at least an edge of the mat support material 38 (Fig. 1).

Instant claims 1-3, 10-11, 15, 19 structurally read on the apparatus and method of Yaguchi.

10. Claims 1-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Santiago et al (4,155,980).

With respect to claim 1, Santiago et al discloses an exhaust system component, e.g. end cone assembly comprising:

a conical shaped sidewall extending outward to a shoulder 7 and a mat protection element extending from said shoulder, away from said sidewall, a mat protection element 5 extending from said shoulder 7, away from said sidewall, wherein said shoulder secures to an exhaust system component (col. 2, line 39 to col. 3, line 30; Figs 1, 3).

With respect to claims 2, 3, the shoulder diameter in Santiago et al is greater than the mat protection element diameter at portion 9 or equivalent to said mat protection element diameter at portion 6 (Figs. 1, 3).

With respect to claims 4, 5, 6, the mat protection element in Santiago et al has a conical geometry extending inward, then outward from the shoulder and then ending with a cylindrical geometry (at portion 4) (Fig. 3).

With respect to claims 7-9, the mat protection element in Santiago et al comprises a protrusion, e.g. rib or dimple, 9, longitudinally disposed thereon (Fig. 3).

With respect to claims 10 and 15, Santiago et al further discloses a catalytic converter and a method of making the catalytic converter comprising:

a catalyst substrate 1 comprising a catalyst;

a shell 3 concentrically disposed around said catalyst substrate;

a mat support material 2 disposed between said catalyst substrate and said shell, and concentrically around said catalyst substrate; and

said endcone assembly, wherein said endcone assembly is securedly attached to said shell at said shoulder (col. 2, line 39 to col. 3, line 30; Figs 1, 3).

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With respect to claims 11-12, 16, 19-20, the mat protection element 5 contacts at least an edge of the mat support material 2 or penetrates at least a portion of said mat support material or disposes between the shell and the substrate (Fig. 3).

With respect to claims 13-14, 17-18, note the protrusions (near # 9 and #5) in Fig. 3 of Santiago et al.

Instant claims 1-20 structurally read on the apparatus and method of Santiago et al.

### ***Conclusion***

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Abthoff et al is cited for showing state of the art.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hien Tran whose telephone number is (571) 272-1454. The examiner can normally be reached on Tuesday-Friday from 7:30AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on (571) 272-1444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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*Hien Tran*

HT  
May 13, 2004

**Hien Tran**  
**Primary Examiner**  
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